

ABSTRACT

A method and system for providing an open database model that allows the combining of spatial and Attribute data in a single relational database. The integration of spatial and Attribute data allows the data to be accessed by either standard
5 structured query language (SQL) or a GIS viewing application. The invention provides: enhanced performance by avoiding proliferation of segmentation; open dynamic segmentation; integrated temporal data; and automated database maintenance. Permanent anchor sections are provided to define spatial references. The data model allows for intersections in the interior of a link (anchor section),
10 resulting in a more stable form of a link, or anchor section. The use of anchor sections simplifies maintenance of data associated with the anchor sections and facilitates the use of anchor sections in a distributed environment. Database views display data in a simple, tabular format. Access to a continuous archive of historical data is supported.